

Climatological Data for October, 1910.
DISTRICT No. 1, NORTH ATLANTIC STATES.

WILFORD M. WILSON, District Editor.

GENERAL SUMMARY.

The month of October, 1910, was unusually warm throughout the district. The percentage of sunshine was high, and, with the exception of the tropical storm that passed along the Atlantic coast, causing heavy rains in parts of Virginia, Delaware, and New Jersey, the month was characterized by more than the usual freedom from stormy weather. The temperature was practically everywhere above normal, the average daily excess ranging from 1.2° in New England to 3.9° in Pennsylvania. In the central part of the district the month was the warmest October in the past 10 years, except October, 1908, which was the warmest on record generally. The precipitation was unusually scanty, averaging only about 40 per cent of the normal amount, except over a limited area that came within the influence of the tropical storm. The effect of the scanty rainfall was most pronounced in the southeastern part of New York, where the water supply for household purposes and for cities became a matter of serious concern. Springs and wells that were never before known to fail went dry. Mr. John W. Sly, Cooperative Observer at Warwick, Orange County, states that the water supply in that region was the lowest to his knowledge in 40 years. This condition is the culmination of the continued scanty rainfall in that section extending over a period of from 4 to 6 months, during which less than one-half the normal amount of rain occurred, and is, perhaps, considerably intensified by the general deficiency of precipitation that characterized the past two seasons. Reports from many parts of the district indicate that the ground water is exceptionally low, the soil dry, and that general and continued rains are needed to restore normal conditions.

TEMPERATURE.

The average temperature for the district was 56° , which is about 3° above the normal, and ranged from 51° in New England to 60° in Virginia. The month takes rank among the warm Octobers, and, in this respect, is in marked contrast with October last year, which was among the coolest Octobers on record. The departure from the normal was greatest over the central and southern parts of the district, and decreased gradually northward, the monthly average being normal or below in northern Maine and New Hampshire.

The most pronounced warm period of the month extended over the first 6 days, the highest temperatures occurring mostly on the 1st, 5th, or 6th, and generally exceeding the usual maximum temperatures for the month of October. Temperatures of 90° or above occurred at numerous stations in the southern part of the district on the 1st, the highest being 93° at Lincoln and Woodstock, Va., on this date. The 1st was an unseasonably warm day over the entire district, with the temperature generally above 75° , except in the northern part of New England and the more elevated parts of New York and Pennsylvania.

Slightly cooler weather followed on the 3d, but with the passage of an area of low pressure eastward down the St. Lawrence Valley during the 4th and 5th, causing strong southerly winds, a rapid rise in temperature occurred, culminating, on the 5th and 6th, in the highest temperatures of the month for the northern part of the district. At many stations in New England and New York the temperature on these dates ranged from 80° to 85° , and at a few points it was as high as 88° or 90° . In Pennsylvania and New Jersey the maximum temperature at one or more points on these dates reached 90° . The usual cool period followed the extreme heat, the fall in temperature in the 24 hours following the 6th being generally more than 20° , except along the coast where the change to cooler occurred about 24 hours

later. The weather continued cool for several days, with the lowest temperatures occurring generally on the 13th, when freezing weather was general over New England, New York, and parts of Pennsylvania and New Jersey. The first destructive frost in the interior of the northern part of New Jersey occurred on this date. Moderate temperatures prevailed until near the close of the second decade, when a very sudden change to warmer occurred in the northern part of the district, followed on the 20th and 21st by an equally sudden change to colder.

The chief cold period occurred during the closing days of the month, when temperatures of 10° to 20° below freezing were common in all parts of the district. This cold period was remarkable for the exceptionally low temperatures for the season that occurred even in the extreme southern part of the district.

PRECIPITATION.

The average precipitation for the district was 2.49 inches, which is about 0.75 inch below the October normal, and ranged from 1.56 inch in Pennsylvania to 4.33 inches in Virginia. This uneven distribution was due mainly to the heavy rains that resulted from the tropical storm that passed up the Atlantic coast on the 20th, its effect, as far as precipitation is concerned, being almost entirely confined to the coastal region as far north as Nantucket. For the remainder of the district, the precipitation was generally less than half the normal amount, and the distribution was fairly even.

With the exception of light and scattered showers over New England on the 1st and 2d, fair and pleasant weather prevailed until the 7th, when a period of unsettled weather with moderate rains set in, which continued through the 8th and 9th. Light and scattered precipitation occurred in the northern part of the district on the 15th, but, with this exception, the second decade was one of fair weather.

During the 20th a tropical storm passed up the coast sufficiently near to cause excessive precipitation at most stations along the coast. Excessive precipitation (2.50 inches or more in 24 hours) was reported from 28 stations on the 20th. At New York City the total rainfall for the month was 3.79 inches, of which all but 0.75 inch occurred within 24 hours on the 20th; at Seaford, Del., the total for the month was 8.26 inches, 5.47 inches of which fell in 24 hours on the 20th, while at Porto Bello, Md., nearly three times as much rain fell on the 20th as occurred during the remaining 30 days of the month. While loss of life and property occurred from this storm during its passage over Florida and the Southeastern States, its track lay too far eastward to cause serious damage in this district, except such as was occasioned by the excessive precipitation in some localities where streets and cellars were flooded, bridges washed out, and such other minor losses as are incident to rains of this character were sustained. For the remainder of the month the rainfall was generally light and scattered, except in the northern part of the district, where moderate amounts occurred on several dates.

RIVER CONDITIONS.

The precipitation of the month was not sufficient to maintain even moderate stages in the rivers of the greater part of the district. Only in southern Maryland and in Virginia did the streams remain at anything like the usual stage. The rivers were lowest from the 16th to the 19th, or at the close of a rainless period of about two weeks. At this time the stages recorded were near or below the low-water mark in many parts of the district, especially in the Delaware system.

SUNSHINE.

The average percentage of possible sunshine for the district was 62, which is higher than that for either August or September

of this year. There was more than the usual variation in the amount of clear weather in different parts of the district. At Eastport, Me., and Hartford, Conn., the percentages of possible sunshine were, respectively, 40 and 45, while at Baltimore, Md., and Mount Weather, Va., the percentages were 74 and 76. The average number of days with 80 per cent or more of possible sunshine was 14, and with 20 per cent or less, 7.

EFFECTS OF THE ERECTION OF NEW AND HIGH BUILDINGS ON THE RECORDS OF WIND VELOCITY AND DIRECTION AT THE NEW YORK WEATHER BUREAU OFFICE.

By E. S. NICHOLS, Local Forecaster, U. S. Weather Bureau.

On October 16, 1898, the wind-recording instruments of the U. S. Weather Bureau station in New York City were moved from the Manhattan Life Building to the American Surety Building, which is situated on the southeast corner of Broadway and Pine streets, one-half mile from the southern end of Manhattan Island and about 1,100 feet east of the Hudson, or North River. Fig. 1 shows the details regarding the location of that and other buildings in the vicinity. With the exception of Trinity Churchyard the entire district shown is, and was at the time of the removal, compactly built up, many of the structures being "skyscrapers." On May 14, 1900, the anemometer and windvane,¹ which up to this time had been exposed on special supports placed on the roof, were moved to the summit of a steel tower near the southwest corner of the roof, where they have since remained. The anemometer is 45 feet above the roof, 350 feet above the street, or 387 feet above sea level, which is practically the level of the Hudson River.

For a few years at the beginning of the record on the American Surety Building (which is 21 stories in height, only about 85 feet square, and built on one of the highest plots in the vicinity), this structure towered above others in its immediate vicinity, the air currents had free sweep, and high velocities were recorded. The prevailing winds (northwest and west) were least retarded as they came freely from the Hudson River, which is a mile wide at that point; other winds were more retarded by buildings, the tallest of which were most numerous to the southward. Beginning in the summer of 1902 with the erection of the Hanover Bank Building only 105 feet distant to the east-southeast, there have been put up a number of "skyscrapers" that might reasonably be expected to modify the wind record; nearly all of the important ones, from our point of view, were completed before 1908. Fig. 1 shows the locations of these buildings and several others of special interest; while Table 1 gives the height of these buildings above the street, and above sea level (close approximations in some cases). Figs. 2 and 3, views from the Hudson River, taken in 1901 and 1908, respectively, give an excellent idea of the changes that have taken place in the surroundings during that period. From Table 1 it will be seen that the Singer Tower, the City Investing Building Tower, and the Liberty Tower are the only structures close at hand that project above the level of the anemometer; and that the Hanover Bank Building, the tower of the Manhattan Life Building, and the Trinity Building Tower (a small affair) are the only others in the vicinity that reach the level of the roof of the American Surety Building. But all the buildings listed, and many others to a less degree must have their effects, direct or indirect, in deflecting the air currents at the anemometer level and retarding them by increasing their turbulence, and especially by producing vertical components of motion. The pattern of instruments used and other conditions at the office building having been constant, any change in the record not

due to actual variation in the velocity of the free air currents must be ascribed to changed surroundings.

TABLE 1.—*Tall buildings erected since the summer of 1902.*

| Key to fig. 1. | Building. | Height in feet. | |
|---------------------------------------|---|------------------|-------------------------------------|
| | | Above street. | Above sea level. ¹ |
| 1 | American Surety..... (Weather Bureau Office. X, Instrument Tower.) | 305 | 342 |
| NEW BUILDINGS. (Shaded areas on map.) | | | |
| 2 | Hanover Bank..... | 329 | 363 |
| 3 | Singer Tower..... | 612 | 646 |
| 4 | City Investing (Main Tower.)..... | 486 | 513 |
| 5, 6 | Hudson Terminal..... | 277 | 303 |
| 7 | Trinity Building, Main part..... | 290 | 317 |
| | Trinity Building, Tower..... | 350 | 387 |
| 8 | United States Realty..... | 282 | 319 |
| 9 | Fidelity and Casualty..... | 251 | 280 |
| 10 | Commercial Cables..... | 317 | 337 |
| 12 | 60 Wall Street..... | 346 | 368 |
| 13 | West Street..... | 315 | 320 |
| 14 | United States Express..... | 302 | 323 |
| 15 | Liberty Tower..... | 401 | 435 |
| 21 | Wall Street Exchange..... | 318 | 342 |
| OLDER BUILDINGS. | | | |
| 11 | Broad Exchange..... | 279 | 294 |
| 16 | Manhattan Life (New Street side)..... | 268 | 292 |
| | Manhattan Tower (above Broadway)..... | 355 | 390 |
| 17 | Empire..... | 283 | 318 |
| 18 | Gillender (recently demolished)..... | 248 | 272 |
| 19 | National Bank of Commerce..... | 270 | 306 |
| 20 | Washington Life..... | 286 | 321 |

¹Close approximations in some cases.

It is our purpose to investigate the modifications of the record that have taken place since the period of free exposure. Fig. 4 shows, graphically, for each year since 1898, the number of days with winds of 40 miles per hour, or more, at the Weather Bureau stations at New York City, Block Island, R. I., New Haven, Conn., Atlantic City, N. J., and Philadelphia, Pa. Fig. 5 gives, graphically, for each month and year from 1899 to 1909, inclusive, the average hourly wind movement at the above stations and at Central Park, New York City (New York Meteorological Observatory).² The elevations at Philadelphia and Central Park remained constant during the period. The sharp drop in the lines for Atlantic City between 1901 and 1902 is coincident with a reduction in elevation at that station. The instruments at New Haven and Block Island have been moved; in the case of the latter they were lowered, but the exposure has been very good during the entire period. Even without allowing for reduced elevation at Block Island, figs. 4 and 5 show a pronounced decrease in the winds at New York with respect to those at the other stations. There is an actual decrease in hourly wind movement from an average of 14.7 miles for 1900, 1901, and 1902 to an average of 12.3 for 1907, 1908, and 1909, a fall of over 16 per cent.

For the purpose of examining this reduction minutely and separating from any true reduction that may have occurred the falling off due to changed exposure, we will compare in detail the New York City Weather Bureau records with those obtained at the New York Meteorological Observatory. The latter institution is maintained by the city of New York under the direction of Dr. Daniel Draper, who has kept a continuous record for over 40 years. The data obtained include hourly wind movement in miles per hour, and direction at each hour to 16 points of the compass. Doctor Draper's instruments are exposed at an elevation of 79 feet above the ground on the roof of the Arsenal in Central Park, about 4½ miles north-northeast of the Weather Bureau office. Immediate surroundings have not changed much since 1898, and the changes that have occurred (growth of trees, progress of building in the vicinity,

¹Standard Weather Bureau anemometer recording each mile of wind movement and wind vane with attachments for recording each minute the direction to 8 points of the compass. The anemometer in its later position is attached to the axis of the vane, directly above the latter.

²For lack of space, curves for January and the year, only, are reproduced; but the others show the same general characteristics.

TABLE 1.—Climatological data for October, 1910. District No. 1, North Atlantic States.

| Stations. | Counties. | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. | | | | | | Precipitation, in inches. | | | | Number of rainy days, .01 inch or more. | Number of clear days. | Number of partly cloudy days. | Number of cloudy days. | Prevailing wind direction. | Observers. | |
|-----------------------|--------------|------------------|------------------------|-------------------------------------|-------------------------------|-----------------|-------|-----------------|-------|---------------------------|--------|-------------------------------|--------------------------|--|-----------------------|-------------------------------|------------------------|----------------------------|-------------|-----------------------------|
| | | | | Mean. | Departure from the normal. | Highest. | Date. | Lowest. | Date. | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmetted. | | | | | | |
| <i>Maine.</i> | | | | | | | | | | | | | | | | | | | | |
| Bar Harbor | Hancock | 20 | 24 | 49.4 | + 1.4 | 75 | 5 | 26 | 31 | 27 | 1.01 | - 3.36 | 0.45 | T. | 7 | 11 | 8 | 12 | sw. | Wm. Miller. |
| Cornish | York | 778 | 55 | 49.1 | + 1.6 | 85 | 6 | 18 | 31 | 43 | 2.04 | - 2.30 | 0.42 | 0.5 | 12 | 13 | 6 | 12 | nw. | T. H. West. |
| Eastport | Washington | 53 | 38 | 47.8 | + 1.2 | 68 | 5 | 31 | 31 | 32 | 1.85 | - 2.00 | 0.63 | 0.0 | 15 | 6 | 6 | 19 | w. | U. S. Weather Bureau. |
| Ellsworth | Hancock | 0 | 47.2 | | | 73 | 7 | 22 | 31 | 33 | 2.49 | | 0.65 | 0.0 | 12 | 10 | 6 | 15 | w. | S. P. Sutton. |
| Fairfield | Somerset | 90 | 25 | 48.2 | + 1.1 | 79 | 5† | 21 | 31 | 34 | 1.10 | - 1.56 | 0.31 | 0.0 | 6 | 13 | 5 | 13 | ... | Edward F. Parker. |
| Farmington | Franklin | 450 | 13 | 47.3 | - 0.3 | 84 | 5† | 16 | 31 | 49 | 1.10 | - 2.15 | 0.25 | 1.0 | 9 | 12 | 8 | 15 | ... | State Normal School. |
| Gardiner | Kennebec | 183 | 18 | 49.3 | + 0.1 | 79 | 5† | 21 | 31 | 36 | 2.26 | - 1.25 | 0.60 | 0.0 | 12 | 13 | 4 | 15 | ... | Samuel D. Soule. |
| Greenville | Piscataquis | 1,000 | 6 | 43.6 | | 80 | 6 | 17 | 31 | 40 | 2.13 | | 0.64 | 0.0 | 13 | | | | | U. S. Weather Bureau. |
| Houlton | Aroostook | 362 | 8 | 49.0 | | 76 | 6 | 20 | 31 | 39 | 1.65 | | 0.50 | | 6 | 13 | 8 | 10 | n. | Bangor & Aroostook R. R. |
| Lewiston | Androscoggin | 185 | 36 | 50.0 | + 2.8 | 85 | 6 | 24 | 31 | 41 | 1.69 | - 2.10 | 0.33 | 0.5 | 12 | 12 | 9 | 10 | nw. | Union Water Power Co. |
| Madison | Madison | 257 | 7 | 45.6 | | 77 | 6 | 18 | 31 | 44 | 1.51 | | 0.35 | T. | 11 | 16 | 0 | 15 | w. | Wm. Jardine. |
| Millinocket | Penobscot | 338 | 7 | 45.8 | | 81 | 6 | 19 | 31 | 36 | 2.21 | | 0.98 | 1.0 | 13 | 7 | 2 | 22 | sw. | H. S. Ferguson. |
| North Bridgton | Cumberland | 450 | 17 | 49.8 | + 0.7 | 83 | 6† | 21 | 31 | 45 | 3.13 | | 0.00 | 0.93 | 2.0 | 9 | 14 | 8 | nw. | G. E. Chadbourne. |
| Orono | Penobscot | 129 | 41 | 48.0 | + 1.8 | 78 | 5† | 21 | 31 | 37 | 2.56 | - 1.34 | 1.32 | T. | 12 | 8 | 8 | 15 | ... | Agricultural Exp. Station. |
| Patten | do | 550 | 8 | 44.0 | | 78 ¹ | 5† | 21 | 31 | 38 ¹ | 2.98 | | 1.35 | 0.7 | 11 | 11 ¹ | 7 ¹ | 11 ¹ | w. | Bangor & Aroostook R. R. |
| Portland | Cumberland | 99 | 39 | 50.0 | + 0.9 | 77 | 5† | 20 | 31 | 29 | 1.27 | - 2.39 | 0.33 | 0.0 | 15 | 10 | 6 | 15 | nw. | U. S. Weather Bureau. |
| Presque Isle | Aroostook | 0 | 44.2 | | | 77 | 6 | 18 | 31 | 34 | 2.87 | | 1.00 | 1.0 | 15 | 10 | 6 | 15 | w. | San Lorenzo Merriman. |
| Rumford Falls | Oxford | 505 | 17 | 46.6 | - 0.1 | 81 | 6 | 21 | 31 | 40 | 1.36 | - 1.48 | 0.31 | 0.2 | 8 | 16 | 10 | 15 | nw. | Chas. A. Mixer. |
| Winslow | Kennebec | 90 | 15 | 47.8 | | 82 | 5† | 15 | 31 | 41 | 1.46 | | 0.20 | 0.0 | 10 | 13 | 15 | 3 | w. | Hollingsaw'th & Whitney Co. |
| <i>New Hampshire.</i> | | | | | | | | | | | | | | | | | | | | |
| Alstead Center | Cheshire | 1,120 | 6 | 48.6 | + 0.3 | 79 | 5 | 23 | 30† | 33 | 1.72 | - 1.23 | 0.35 | 0.0 | 9 | 18 | 4 | 9 | nw. | Frank Dewing. |
| Benton | Grafton | 0 | 45.2 | | | 82 | 6 | 19 | 31 | 30 | 2.00 | | 0.51 | 0.5 | 8 | 12 | 6 | 13 | nw. | N. H. State Sanatorium. |
| Bethlehem | do | 1,470 | 18 | 45.5 | - 0.7 | 80 | 6 | 20 | 31 | 35 | 1.31 | - 1.79 | 0.31 | 1.0 | 11 | 12 | 2 | 17 | nw. | Benjamin Tucker. |
| Concord | Merrimack | 350 | 50 | 49.7 | + 1.0 | 85 | 5 | 19 | 31 | 45 | 1.03 | - 2.21 | 0.44 | T. | 9 | 15 | 6 | 10 | nw. | U. S. Weather Bureau. |
| Durham | Stafford | 88 | 15 | 51.0 | + 1.9 | 86 | 5 | 20 | 31 | 45 | 1.64 | - 2.12 | 0.64 | 0.0 | 6 | 18 | 4 | 9 | nw. | Agricultural Exp. Station. |
| Franklin | Merrimack | 440 | 11 | 49.6 | | 85 | 5 | 18 | 31 | 49 | 1.06 | | 0.26 | T. | 13 | 14 | 8 | 9 | nw. | Dr. C. P. Webster. |
| Grafton | Grafton | 863 | 24 | 47.1 | + 0.4 | 84 | 5 | 21 | 31 | 49 | 0.75 | - 2.29 | 0.16 | 1.0 | 9 | 15 | 6 | 10 | nw. | Perley R. Kimball. |
| Hanover | do | 603 | 78 | 48.3 | + 1.9 | 85 | 6 | 18 | 31 | 44 | 1.12 | - 1.46 | 0.32 | 0.3 | 10 | 10 | 7 | 14 | nw. | Dartmouth College. |
| Keene | Cheshire | 508 | 25 | 50.2 | + 2.6 | 85 | 5 | 16 | 31 | 46 | 1.41 | - 1.94 | 0.40 | T. | 8 | 14 | 10 | 10 | nw. | Samuel Wadsworth. |
| Nashua | Hillsboro | 125 | 25 | 52.4 | + 3.5 | 84 | 5† | 20 | 31 | 37 | 1.34 | - 1.31 | 0.38 | 0.0 | 8 | 14 | 9 | 8 | nw. | Jackson Company. |
| Newton | Rockingham | 22 | 50.4 | + 2.0 | 84 | 5 | 15 | 31 | 37 | 2.04 | - 2.22 | 0.52 | 0.0 | 6 | 15 | 11 | 5 | nw. | W. C. Gale. | |
| Plymouth | Grafton | 500 | 22 | 47.0 | + 2.3 | 81 | 6 | 15 | 31 | 43 | 1.48 | - 1.91 | 0.38 | 2.0 | 9 | 20 | 2 | 9 | w. | Mrs. Hattie G. Trow. |
| <i>Vermont.</i> | | | | | | | | | | | | | | | | | | | | |
| Bloomfield | Essex | 3 | 45.4 | | | 81 | 6 | 11 | 31 | 42 | 2.07 | | 0.70 | 0.8 | 12 | 9 | 8 | 14 | s. | Lyman Falls L. and P. Co. |
| Cavendish | Windsor | 910 | 7 | 48.6 ^b | | 84 ^b | 5† | 15 ^b | 31 | 44 ^b | 0.99 | | 0.42 | 0.5 | 7 | 14 ^a | 6 ^c | 6 ^c | w. | Miss M. A. Kingsbury. |
| Chelsea | Orange | 830 | 15 | 45.7 | + 0.5 | 83 | 5 | 16 | 31 | 42 | 1.89 | - 0.34 | 0.40 | 1.0 | 9 | 10 | 9 | 12 | n. | W. F. Dewey. |
| Jacksonville | Windham | 1,000 | 25 | 48.2 | + 3.6 | 78 | 5 | 10 | 31 | 35 | 0.89 | - 3.61 | 0.15 | 0.0 | 10 | 14 | 13 | 4 | sw. | Miss Martha French. |
| Manchester | Bennington | 980 | 11 | 49.2 | | 77 | 6 | 26 ^a | 30 | 32 ^a | 1.89 | | 0.59 | T. | 5 | 9 | 12 ^a | 9 ^a | sw. | N. M. Canfield. |
| St. Johnsbury | Caledonia | 711 | 17 | 48.0 | + 1.6 | 81 | 6 | 18 | 31 | 42 | 1.44 | - 0.58 | 0.41 | 2.0 | 12 | 11 | 7 | 13 | sw. | Fairbanks Museum. |
| Woodstock | Windsor | 700 | 18 | 47.5 | + 1.7 | 84 | 6 | 17 | 31 | 43 | 1.46 | - 1.08 | 0.48 | T. | 7 | 11 | 2 | 18 | ... | John S. Eaton. |
| <i>Massachusetts.</i> | | | | | | | | | | | | | | | | | | | | |
| Amherst | Hampshire | 222 | 21 | 52.2 | + 3.2 | 84 | 5 | 19 | 31 | 38 | 0.93 | - 2.82 | 0.34 | T. | 7 | 18 | 8 | 5 | sw. | Agricultural Exp. Station. |
| Blue Hill | Norfolk | 640 | 26 | 53.0 | + 3.5 | 81 | 5† | 28 | 30 | 32 | 1.64 | - 3.07 | 0.54 | 0.0 | 12 | 15 | 5 | 12 | nw. | Blue Hill Observatory. |
| Boston | Suffolk | 134 | 40 | 56.0 | + 3.7 | 85 | 5 | 33 | 30 | 32 | 1.14 | - 2.72 | 0.55 | 0.0 | 10 | 14 | 5 | 12 | nw. | U. S. Weather Bureau. |
| Chestnut Hill | do | 124 | 30 | 55.5 | + 4.8 | 87 | 5 | 22 | 31 | 37 | 1.69 | - 2.51 | 0.69 | 0.0 | 7 | 23 | 3 | 5 | ... | Metropolitan Water Board. |
| Clinton | Worcester | 370 | 14 | 52.2 | | 80 | 6 | 24 | 30 | 31 | 1.88 | | 0.58 | 0.0 | 8 | 19 | 2 | 10 | ... | Do. |
| Concord | Middlesex | 139 | 20 | 51.4 | + 2.1 | 85 | 5 | 18 | 31 | 39 | 1.65 | - 2.33 | 0.51 | 0.0 | 10 | 11 | 12 | 8 | nw. | Fred. A. Tower. |
| Fall River | Bristol | 200 | 44 | 54.6 | + 1.4 | 78 | 5† | 30 | 32 | 35 | 1.74 | - 2.99 | 0.62 | 0.0 | 9 | 8 | 17 | 6 | nw. | C. V. S. Remington. |
| Fitchburg | Worcester | 550 | 27 | 52.8 | + 3.7 | 84 | 5 | 21 | 31 | 38 | 1.34 | - 2.64 | 0.37 | 0.0 | 8 | 19 | 3 | 9 | w. | Dr. A. P. Mason. |
| Framingham | Middlesex | 160 | 30 | 54.4 | + 4.2 | 84 | 5† | 20 | 31 | 39 | 1.88 | - 2.47 | 0.53 | 0.0 | 9 | 17 | 8 | 6 | sw. | Metropolitan Water Board. |
| Hyannis | Barnstable | 31 | 19 | 53.8 | - 0.5 | 73 | 6 | 30 | 30 | 38 | 2.92 | - 0.70 | 0.95 | 0.0 | 12 | 17 | 8 | 6 | sw. | C. F. Sleeper. |
| Lawrence | Essex | 51 | 26 | 52.4 | + 2.4 | 84 | 6 | 22 | 31 | 31 | 1.56 | - 2.29 | 0.49 | 0.0 | 9 | 12 | 16 | 3 | sw. | Essex Company. |
| Lowell | Middlesex | 100 | 25 | 54.2 | + 4.3 | 83 | 5† | 23 | 31 | 34 | 1.18 | - 2.49 | 0.47 | 0.0 | 7 | 17 | 8 | 7 | sw. | Prop. Locks and Canals. |
| Middleboro | Plymouth | 53 | 24 | 52.6 | + 2.8 | 79 | 6 | 17 | 31 | 43 | 1.77 | - 2.77 | 0.64 | 0.0 | 7 | 8 | 14 | 9 | nw. | A. R. Gurney. |
| Monson | Hampden | 420 | 26 | 51.0 | + 1.7 | 80 | 5† | 19 | 31 | 38 | 1.05 | - 2.98 | 0.25 | 0.0 | 8 | 21 | 5 | 9 | sw. | Dr. G. E. Fuller. |
| Nantucket | do | 15 | 24 | 55.8 | + 1.3 | 73 | 6 | 36 | 31 | 42 | 1.73 | - 1.33 | 3.86 | 0.0 | 10 | 11 | 11 | 9 | sw. | U. S. Weather Bureau. |
| New Bedford | Bristol | 38 | 98 | 54.4 | | 89 | 5 | 16 | 21 | 47 | 1.84 | | 0.48 | 0.0 | 7 | 16 | 9 | 6 | w. | City Engineer. |
| Norfolk | Hampshire | 244 | 7 | 54.4 | | 86 | 7 | 19 | 31 | 45 | 0.92 | | 0.35 | 0.0 | 4 | 21 | 3 | 7 | nw. | Miss Ruby H. Martyn. |
| Northampton | Hampshire | 205 | 2 | 53.0 | | 80 | 7 | 29 | 31 | 31 | 1.78 | | 0.66 | 0.0 | 6 | 23 | 0 | 12 | ... | D. E. Hoxie. |
| Plymouth | Plymouth | 25 | 25 | 52.5 | | 79 | 5 | 29 | 31 | 34 | 2.11 | | 0.91 | 0.0 | 7 | 13 | 10 | 6 | nw. | Miss Laura B. Knapp. |
| Provincetown | Barnstable | 40 | 23 | 55.0 | + 2.4 | 72 | 6† | 38 | 30 | 35 | 2.20 | - 1.96 | 0.90 | 0.0 | 5 | 19 | 0 | 12 | ... | Gideon Bowley. |
| Rockport | do | 25 | 8 | 54.2 | | 79 | 5 | 24 | 29 | 28 | 1.23 | | 0.35 | 0.0 | 7 | 15 | 6 | 10 | ... | C. F. Bearse. |
| Rutland | Worcester | 1,160 | 8 | 50.4 | | 77 | 6 | 16 | 31 | 38 | 1.18 | | 0.45 | T. | 5 | 5 | 10 | 10 | ... | State Sanatorium. |
| South Egremont | Berkshire | 764 | 8 | 54.7 | | 82 | 5† | 21 | 31 | 32 | 1.01 | - 1.53 | 0.43 | 0.0 | 4 | 10 | 9 | 9 | ... | Roscoe C. Taft. |
| Turners Falls | Franklin | 200 | 19 | 51.3 | + 1.4 | 82 | 5† | 21 | 31 | 32 | 1.01 | - 1.53 | 0.43 | 0.0 | 4 | 10 | 9 | 9 | ... | Turners Falls Co. |
| Westboro | Worcester | | | | | | | | | | | | | | | | | | | |

TABLE 1.—Climatological data for October, 1910. District No. 1—Continued.

| Stations. | Counties. | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. | | | | | Precipitation, in inches. | | | | | Sky. | Prevailing wind direction. | Observers. | | | | | |
|----------------------|--------------|------------------|------------------------|-------------------------------------|----------------------------|----------|-------|---------|---------------------------|-----------------------|--------|----------------------------|-----------------------|-------------------------|--|-----------------------|-------------------------------|------------------------|----------------------|-----------------------|--------------|
| | | | | Mean. | Departure from the normal. | Highest. | Date. | Lowest. | Date. | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmeted. | Number of rainy days, 01 inch or more. | Number of clear days. | Number of partly cloudy days. | Number of cloudy days. | | | |
| New York—Cont'd. | | | | | | | | | | | | | | | | | | | | | |
| Bedford. | Westchester. | 450 | 19 | 59.0 | + 6.0 | 88 | 5 | 24 | 31 | 38 | 2.34 | - 1.60 | 0.91 | 0.0 | 5 | 18 | 8 | 5 | .... | Dr. L. Rosenberg. | |
| Binghamton. | Broome. | 875 | 19 | 50.3 | + 1.1 | 82 | 6 | 23 | 30 | 38 | 1.46 | - 1.66 | 0.78 | T. | 7 | 13 | 5 | 13 | nw. | U. S. Weather Bureau. | |
| Bouckville. | Madison. | 1,350 | 13 | 49.8 | + 0.8 | 80 | 6 | 23 | 31 | 35 | 1.64 | - 2.27 | 0.50 | 1.5 | 9 | 13 | 6 | 13 | nw. | L. W. Griswold. | |
| Boyle Corners. | Putnam. | 560 | 23 | | | | | | | | 0.99 | - 3.35 | | | | | | | | Thomas Manning. | |
| Carmel. | do. | 500 | 18 | 54.6 | + 3.5 | 83 | 6 | 23 | 31 | 39 | 1.07 | - 3.06 | 0.43 | 0.0 | 6 | 14 | 4 | 13 | nw. | Do. | |
| Chatham. | Columbia. | 470 | 9 | 53.2 | + 3.4 | 83 | 6 | 23 | 30 | 36 | 1.02 | - 2.37 | 0.50 | T. | 6 | 20 | 4 | 4 | n. | Morton R. Tank. | |
| Cooperstown. | Otsego. | 1,250 | 56 | 47.7 | + 1.0 | 80 | 6 | 24 | 29 | 36 | 1.32 | - 2.02 | 0.40 | | 10 | 15 | 7 | 9 | s. | Elizabeth C. Keese. | |
| Corinth. | Saratoga. | 542 | 8 | | | | | | | | 1.27 | | 0.52 | T. | 4 | | | | | A. M. Hollister. | |
| Cortland. | Cortland. | 1,129 | 48 | 53.7 | + 6.8 | 82 | 6† | 26 | 13† | 39 | 1.79 | - 2.10 | 0.60 | T. | 9 | 16 | 7 | 8 | nw. | F. G. Baker. | |
| Cutchogue. | Suffolk. | 32 | 33 | 56.2 | + 1.0 | 80 | 5† | 30 | 30 | 34 | 2.47 | - 0.95 | 1.51 | 0.0 | 6 | 12 | 3 | 3 | sw. | Wm. A. Fleet. | |
| De Ruyter. | Madison. | 1,300 | 7 | 52.6 | + 1.4 | 83 | 6 | 22 | 13 | 43 | 2.47 | | 0.56 | T. | 10 | 13 | 5 | 13 | s. | B. D. Crandall. | |
| Easton. | Washington. | 20 | | | | | | | | | 1.37 | - 2.27 | 0.54 | T. | 5 | | | | | H. Taber. | |
| Elmira. | Chemung. | 863 | 31 | 55.9 | + 4.9 | 82 | 6† | 24 | 30 | 45 | 1.03 | - 2.03 | 0.74 | 0.0 | 3 | 10 | 14 | 7 | nw. | Gerity Bros. | |
| Fort Hunter. | Montgomery. | 280 | 2 | | | | | | | | | | | | | | | | C. E. Wing. | | |
| Fort Plain. | do. | 316 | 6 | 52.0 | | 85 | 6 | 26 | 21 | 36 | 1.51 | | 0.40 | T. | 6 | 17 | 5 | 9 | w. | Abram Devendorf. | |
| Glens Falls. | Warren. | 340 | 19 | 52.5 | + 3.4 | 85 | 6 | 22 | 31 | 37 | 1.56 | - 1.51 | 0.40 | T. | 9 | 14 | 7 | 10 | n. | Prof. C. L. Williams. | |
| Gloversville. | Fulton. | 850 | 18 | 49.0 | + 1.3 | 82 | 6 | 19 | 31 | 42 | 1.57 | - 1.58 | 0.60 | T. | 7 | 17 | 9 | 5 | w. | W. L. McLean. | |
| Greenfield Center. | Saratoga. | 314 | 12 | 50.8 | + 0.8 | 80 | 6 | 23 | 31 | 38 | 1.17 | - 2.21 | 0.50 | T. | 7 | 18 | 6 | 7 | nw. | S. E. Darow. | |
| Greenwich. | Washington. | 425 | 13 | 51.6 | + 1.4 | 85 | 5† | 22 | 30 | 40 | 1.34 | - 1.64 | 0.32 | T. | 11 | 14 | 15 | 2 | w. | Homer J. Whitecomb. | |
| Griffin Corners. | Delaware. | 2,260 | 10 | | | | | | | | | | | | | | | | Kelsey H. Kelly. | | |
| Haskinsville. | Steuben. | 15 | | | | | | | | | 2.01 | - 0.82 | 0.63 | | 6 | | | | | W. G. Collins. | |
| Homer. | Cortland. | 2 | 50.4 | + 4.4 | 81 | 6 | 23 | 30 | 40 | 1.93 | | 0.53 | T. | 10 | 15 | 8 | 8 | nw. | Charles C. Mortimer. | | |
| Hoosick Falls. | Rensselaer. | 410 | 8 | | | | | | | | 2.53 | | 0.71 | T. | 13 | | | | | Sanford L. Cluett. | |
| Indian Lake. | Hamilton. | 1,705 | 11 | 46.0 | + 0.8 | 70 | 6 | 16 | 30 | 47 | 2.00 | - 1.66 | 0.40 | T. | 9 | 15 | 5 | 11 | n. | Lester Severe. | |
| Jeffersonville. | Sullivan. | 1,240 | 7 | 51.3 | | 83 | 6 | 19 | 31 | 49 | 0.95 | | 0.60 | T. | 4 | 19 | 9 | 3 | w. | Chas. Wilfert, Jr. | |
| Lake Pleasant. | Hamilton. | 3 | 44.8 | | | 79 | 7 | 19 | 30† | 45 | 2.20 | | 0.70 | | 8 | | | | | Willett Lawrence. | |
| Liberty. | Sullivan. | 2,300 | 28 | 49.6 | + 2.6 | 78 | 6 | 20 | 29 | 42 | 1.75 | - 1.87 | 1.00 | 0.0 | 5 | 20 | 2 | 9 | se. | Dr. H. M. King. | |
| Little Falls. | Herkimer. | 924 | 12 | 50.5 | + 1.1 | 86 | 6 | 22 | 13 | 35 | 1.86 | - 1.60 | 0.43 | 0.0 | 8 | 20 | 4 | 7 | w. | O. J. Dempster. | |
| Mohonk Lake. | Ulster. | 1,245 | 14 | 55.8 | + 6.5 | 80 | 3 | 25 | 30 | 31 | 1.60 | - 2.17 | 0.58 | 0.0 | 5 | 17 | 10 | 4 | nw. | Albert K. Smiley. | |
| Morehouseville. | Hamilton. | 1,687 | 2 | 46.1 | | 80 | 6 | 16 | 30 | 49 | 3.65 | | 0.80 | 2.0 | 9 | 5 | 17 | 9 | w. | Theodore C. Remonda. | |
| Mount Hope. | Westchester. | 200 | 13 | 55.0 | + 2.1 | 85 | 9 | 28 | 13† | 45 | 1.25 | - 3.46 | 0.60 | 0.0 | 3 | 7 | 17 | 7 | | Wm. A. Cornelius. | |
| Newark Valley. | Tioga. | 825 | 23 | | | | | | | | 0.99 | - 2.70 | 0.52 | T. | 5 | 17 | 6 | 8 | | M. D. Clinton. | |
| New Berlin. | Chenango. | 3 | | | | | | | | | 1.06 | | 0.23 | | 11 | | | | | Roger Greene. | |
| New Lisbon. | Otsego. | 1,234 | 20 | 48.6 | + 2.6 | 77 | 6 | 17 | 13 | 48 | 0.89 | - 2.45 | 0.33 | T. | 6 | 11 | 8 | 12 | sw. | G. A. Yates. | |
| New York City. | New York. | 314 | 55 | 58.1 | + 2.5 | 83 | 6 | 32 | 30 | 26 | 3.79 | + 0.08 | 3.04 | 0.0 | 5 | 14 | 9 | 8 | nw. | U. S. Weather Bureau. | |
| North Creek. | Warren. | 1,002 | 2 | 48.6 | | 82 | 6 | 20 | 31 | 47 | 1.67 | | 0.53 | | 5 | 15 | 7 | 9 | w. | W. G. Kenwell. | |
| Northville. | Fulton. | 742 | 8 | | | | | | | | 1.45 | | 0.52 | | | | | | P. C. Pickard. | | |
| Norwich. | Chenango. | 1,015 | 4 | 52.9 | | 78 | 6 | 26 | 31 | 32 | 1.04 | | 0.30 | | 7 | | | | | P. L. Clark. | |
| Oneonta. | Otsego. | 1,112 | 16 | 52.8 | + 3.0 | 84 | 6 | 21 | 13 | 45 | 0.99 | - 2.70 | 0.55 | T. | 4 | 18 | 6 | 7 | nw. | H. W. Lee. | |
| Oxford. | Chenango. | 916 | 45 | 52.2 | + 5.2 | 81 | 6 | 24 | 30 | 48 | 1.02 | - 2.45 | 0.35 | T. | 5 | 14 | 12 | 5 | n. | John P. Davis. | |
| Port Jervis. | Orange. | 470 | 26 | 55.3 | + 4.3 | 82 | 6 | 19 | 31 | 43 | 0.30 | - 2.79 | 0.48 | 0.0 | 4 | 7 | 19 | 5 | sw. | Prof. John M. Dolph. | |
| Salisbury Mills. | Herkimer. | 1,526 | 13 | 48.9 | - 0.1 | 84 | 6 | 19 | 13 | 39 | 2.56 | - 1.71 | 0.35 | | 8 | 19 | 5 | 7 | w. | Joseph Ryan. | |
| Scarsdale. | Orange. | 314 | 11 | 52.6 | | 86 | 6 | 18 | 31 | 42 | 0.94 | - 3.99 | 0.45 | 0.0 | 4 | 23 | 3 | 3 | w. | H. P. Ramsdell. | |
| Setauket. | Westchester. | 200 | 6 | 56.0 | | 82 | 6 | 26 | 20 | 32 | 1.62 | | 1.27 | 0.0 | 3 | 24 | 6 | 1 | nw. | C. H. Wilmart. | |
| Sherburne. | Suffolk. | 40 | 25 | 57.5 | + 3.2 | 81 | 5 | 34 | 30† | 31 | 1.50 | - 2.95 | 1.00 | 0.0 | 4 | 19 | 8 | 6 | w. | Selah B. Strong. | |
| Southampton. | Chenango. | 3 | | | | | | | | | 0.84 | | 0.21 | | 6 | | | | | E. B. Collins. | |
| Southwest Reservoir. | Suffolk. | 36 | 9 | 56.4 | | 77 | 5 | 31 | 21 | 29 | 2.06 | | 2.19 | 0.0 | 9 | 19 | 9 | 3 | nw. | W. L. Jagger. | |
| Spiers Falls. | Saratoga. | 310 | 15 | | | | | | | | 0.97 | - 3.20 | | | | | | | | Thomas Manning. | |
| Trenton Falls. | Oneida. | 400 | 9 | 50.2 | | 82 | 6 | 20 | 13 | 44 | 1.38 | | 0.61 | T. | 4 | 13 | 5 | 7 | sw. | W. F. Anderson. | |
| Tribeshill. | Montgomery. | 751 | 7 | | | | | | | | 2.88 | | 0.67 | T. | 10 | | | | | C. W. Young. | |
| Utica. | Oneida. | 268 | | | | | | | | | 1.30 | | 0.70 | | | | | | R. S. Marshall. | | |
| Wadding River. | Suffolk. | 537 | 44 | 52.9 | | | | | | | 2.43 | - 1.64 | 0.85 | | 6 | | | | | W. E. Young. | |
| Wappingers Falls. | Suffolk. | 112 | 4 | 56.2 | | 81 | 5 | 27 | 29 | 45 | 2.04 | | 1.35 | 0.0 | 6 | 25 | 2 | 4 | sw. | H. B. Fullerton. | |
| Warwick. | Dutchess. | 110 | 20 | 53.6 | + 1.6 | 82 | 6 | 24 | 30 | 32 | 1.03 | - 2.96 | 0.52 | 0.0 | 6 | 13 | 16 | 2 | n. | H. C. Townsend. | |
| Waverly. | Tioga. | 538 | 16 | | | | | | | | 1.41 | - 2.45 | 0.46 | 0.0 | 4 | | | | | John W. Sly. | |
| West Berne. | Albany. | 824 | 28 | 52.8 | + 3.2 | 86 | 6 | 17 | 36 | 45 | 0.88 | - 2.21 | 0.43 | 0.3 | 6 | 12 | 9 | 10 | nw. | Hon. J. F. Shoemaker. | |
| West Point. | Orange. | 946 | 11 | 50.3 | + 0.7 | 85 | 6 | 18 | 30 | 31 | 5.04 | - 2.56 | 0.73 | 0.0 | 5 | 8 | 13 | 1 | nw. | W. J. Haverly. | |
| Windham. | Greene. | 1,520 | 10 | 59.2 | + 2.0 | 80 | 6 | 19 | 30 | 44 | 0.86 | - 2.68 | 0.35 | | 6 | 16 | 11 | 4 | nw. | Maj. Chas. M. Gandy. | |
| Pennsylvania. | Blair. | 1,181 | 22 | 58.5 | + 7.1 | 84 | 6† | 31 | 36 | 35 | 1.05 | - 1.37 | 0.89 | T. | 4 | | | | | A. R. Mott. | |
| Bethlehem. | Northampton. | 260 | 1 | 57.4 | | 85 | 6 | 26 | 31 | 39 | 2.04 | | 0.83 | 0.0 | 6 | 26 | J | 11 | w. | C. W. Billin. | |
| Clearfield. | Clearfield. | 1,107 | 3 | 53.2 | | 84 | 6 | 21 | 30 | 47 | 1.17 | | 0.78 | T. | 7 | 16 | 7 | 8 | nw. | Prof. E. C. Roest. | |
| Emporium. | Cameron. | 1,050 | 23 | 52.8 | + 1.5 | 84 | 6 | 24 | 31 | 44 | 1.54 | - 1.61 | 0.62 | 3.4 | 6 | 12 | 11 | 8 | w. | Raymond C. Ogden. | |
| Ephrata. | Lancaster. | 384 | 11 | 55.5 | + 1.2 | 85 | 5† | 23 | 30 | 42 | 2.30 | | 0.83 | 6.92 | 0.0 | 6 | 19 | 1 | 11 | w. | T. B. Lloyd. |
| Everett. | Bedford. | 1,080 | 13 | 54.8 | + 2.5 | 87 | 6 | 23 | 30 | 46 | 1.09 | - 1.60 | 1.05 | T. | 2 | 14 | 19 | 1 | w. | W. L. Frantz. | |
| George School. | Bucks. | 184 | 4 | 56.8 | | 86 | 6 | 23 | 31 | 42 | 3.06 | | 2.02 | 0.0 | 8 | 22 | 4 | 5 | w. | B. L. Steckman. | |
| Gettysburg. | Adams. | 600 | 36 | 57.7 | + 7.0 | 87 | 6† | 24 | 31 | 42 | 1.53 | - 1.62 | 0.74 | 0.0 | 6 | 18 | 9 | 5 | sw. | Col. E. B. Cope. | |
| Gordon. | Schuylkill. | 804 | 7 | 52.2 | | 85 | 6 | 18 | 20 | 24 | 1.78 | | 0.60 | 0.0 | 7 | 18 | 5 | 8 | w. | Capt. J. G. Johnson. | |
| Hamburg. | Harrisburg. | 380 | 19 | 56.8 | + 2.9 | 88 | 6 | 20 | 26 | 38 | 1.58 | - 2.41 | 0.94 | 0.0 | 2 | 24 | 3 | 4 | nw. | W. J. Kalbach. | |
| Harrington. | Dauphin. | 361 | 23 | 57.0 | + 3.9 | 85 | 6 | 21 | 30 | 31 | 1.30 | - 1.56 | 0.45 | T. | 7 | 14 | 5 | 5 | w. | U. S. Weather Bureau. | |
| Hyndman. | Huntingdon. | 650 | 22 | 55. | | | | | | | | | | | | | | | | | |

TABLE 1.—Climatological data for October, 1910. District No. 1—Continued.

| Stations. | Counties. | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. | | | | | | Precipitation, in inches. | | | | | | Sky. | | | | Prevailing wind direction. | Observers. |
|---------------------------|----------------|------------------|------------------------|-------------------------------------|----------------------------|-----------------|----------------|---------|-----------------|---------------------------|--------|----------------------------|-----------------------|-------------------------|---|-----------------------|-------------------------------|------------------------|-------------------|----------------------------|---------------|
| | | | | Mean. | Departure from the normal. | Highest. | Date. | Lowest. | Date. | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmeted. | Number of rainy days, .01 inch or more. | Number of clear days. | Number of partly cloudy days. | Number of cloudy days. | | | |
| <i>New Jersey—Cont'd.</i> | | | | | | | | | | | | | | | | | | | | | |
| Belvidere. | Warren. | 289 | 19 | 55.6 | + 3.1 | 85 | 6 | 21 | 30 | 39 | 2.12 | - 1.72 | 0.84 | 0.0 | 5 | 16 | 7 | 8 | | S. J. Hixson. | |
| Bergen Point. | Hudson. | 37 | 13 | | | | | | | | | | | | | | | | | Dr. W. H. Mitchell. | |
| Boonton. | Morris. | 413 | 20 | | | | | | | | | | | | | | | | | Foster Peer. | |
| Bridgeton. | Cumberland. | 30 | 29 | 50.4 | + 2.7 | 89 | 6 | 28 | 30 [†] | 37 | 3.28 | - 1.46 | 1.53 | 0.0 | 5 | 16 | 8 | 7 | nw. | H. A. Jorden. | |
| Burlington. | Burlington. | 12 | 26 | | | | | | | | | | | | | | | | | D. S. B. McCoy. | |
| Canton. | Salem. | 24 | 16 | | | | | | | | | | | | | | | | | J. H. Maskell. | |
| Cape May City. | Cape May. | 17 | 26 | 60.4 | + 2.8 | 82 | 16 | 36 | 30 | 37 | 5.55 | + 2.25 | 3.43 | 0.0 | 9 | 18 | 8 | 5 | sw. | U. S. Weather Bureau. | |
| Charlottesville. | Passaic. | 719 | 18 | 54.1 | + 3.2 | 83 | 6 | 18 | 21 | 42 | 2.38 | - 2.03 | 1.20 | 0.0 | 4 | 15 | 8 | 8 | sw. | G. S. Briggs. | |
| Chatham. | Morris. | 234 | 8 | | | | | | | | | | | | | | | | | M. A. Butler. | |
| Clayton. | Gloucester. | 126 | 17 | 58.1 | + 3.0 | 90 | 6 | 27 | 31 | 39 | 2.77 | - 1.65 | 0.0 | 0.0 | 6 | 16 | 7 | 8 | nw. | W. T. Farley. | |
| College Farm. | Middlesex. | 100 | 15 | 56.8 | + 3.0 | 85 | 6 | 26 | 30 | 38 | 3.86 | + 0.34 | 2.89 | 0.0 | 8 | 15 | 9 | 7 | nw. | G. B. Thrasher. | |
| Culver's Lake. | Sussex. | 848 | 9 | | | | | | | | | | | | | | | | | B. E. Riker. | |
| Dover. | Morris. | 575 | 26 | 52.2 | + 1.5 | 81 | 6 | 22 | 31 | 27 ^a | 2.30 | - 1.70 | 1.09 | 0.0 | 5 | 12 | 10 | 9 | | W. C. Harris. | |
| Elizabeth. | Union. | 33 | 31 | 58.6 | + 3.3 | 85 | 6 | 30 | 31 | 33 | 3.23 | - 0.59 | 2.00 | 0.3 | 7 | 14 | 3 | 8 | w. | W. M. Oliver. | |
| Flemington. | Hunterdon. | 187 | 22 | 57.1 | + 2.0 | 86 | 6 | 24 | 31 | 41 | 1.04 | - 1.04 | 1.38 | 0.0 | 0 | 16 | 8 | 7 | w. | H. E. Deats. | |
| Haddonfield. | Camden. | 75 | 16 | 57.6 | + 3.9 | 85 | 6 | 26 | 31 | 38 | 3.27 | + 0.13 | 2.34 | 0.0 | 9 | 17 | 5 | 9 | nw. | C. F. Richardson. | |
| Hammonston. | Atlantic. | 80 | 12 | | | | | | | | | | | | | | | | | Orville Bassett. | |
| Hightstown. | Mercer. | 85 | 18 | 57.3 | + 3.6 | 87 | 6 | 25 | 31 | 41 | 4.39 | + 0.16 | 3.30 | 0.0 | 0 | 7 | 15 | 7 | 9 | sw. | Ernst Wenger. |
| Imlaystown. | Monmouth. | 106 | 24 | | | | | | | | | | | | | | | | | Dr. F. C. Price. | |
| Indian Mills. | Burlington. | 76 | 21 | 57.1 | + 2.7 | 87 | 6 | 22 | 30 | 44 | 4.31 | + 0.73 | 3.18 | 0.0 | 8 | 15 | 8 | 8 | sw. | James Armstrong. | |
| Jersey City. | Hudson. | 15 | 12 | 58.8 | + 3.2 | 85 | 5 [†] | 32 | 30 | 33 | 3.20 | - 0.55 | 2.32 | 0.0 | 6 | 14 | 9 | 8 | sw. | S. K. Pearson, jr. | |
| Lakewood. | Ocean. | 54 | 8 | | | | | | | | | | | | | | | | H. R. Major. | | |
| Lambertville. | Hunterdon. | 95 | 24 | 56.4 | + 2.8 | 84 | 6 | 24 | 31 | 40 | 3.25 | - 0.62 | 2.13 | 0.0 | 6 | 16 | 7 | 8 | nw. | W. R. Bowne. | |
| Layton. | Sussex. | 550 | 11 | 52.7 | + 3.1 | 84 | 6 | 18 | 30 [†] | 45 | | | | | | 15 | 7 | 9 | s. | W. C. Hursh. | |
| Little Falls. | Passaic. | 175 | 7 | | | | | | | | | | | | | | | | A. Sweetman. | | |
| Long Branch. | Monmouth. | 30 | 3 | 59.2 | | 84 | 1 | 28 | 30 | 36 | 2.52 | | 1.45 | 0.0 | 5 | 16 | 6 | 9 | nw. | B. B. Bobbit. | |
| Mahwah. | Bergen. | 312 | 8 | | | | | | | | | | | | | | | | C. L. Barker. | | |
| Moorestown. | Burlington. | 71 | 48 | 58.0 | + 3.8 | 86 | 6 | 28 | 31 | 33 | 3.05 | - 0.59 | 2.18 | 0.0 | 7 | 15 | 7 | 3 | nw. | J. C. Beans. | |
| Newark. | Essex. | 140 | 67 | 58.0 | + 3.9 | 87 | 6 | 30 | 31 | 34 | 3.64 | - 0.13 | 2.43 | 0.0 | 8 | 13 | 10 | 9 | nw. | Prof. Wm. Wiener. | |
| New Brunswick. | Middlesex. | 61 | 57 | 57.0 [†] | + 2.4 | 86 | 6 | 21 | 31 | 41 | 3.60 | + 0.01 | 3.00 | 0.0 | 4 | 15 | 8 | 8 | | B. H. Kienbaum. | |
| Newton. | Cape May. | 678 | 31 | | | | | | | | | | | | | | | | W. L. Flick. | | |
| Northfield. | Atlantic. | 3 | | | | | | | | | | | | | | | | | H. A. Probert. | | |
| Paterson. | Passaic. | 110 | 39 | 57.0 | + 2.6 | 87 | 6 | 26 | 31 | 38 | 2.72 | - 1.43 | 1.82 | 0.0 | 5 | 13 | 10 | 8 | sw. | D. W. Smith. | |
| Phillipsburg. | Warren. | 196 | 13 | 56.0 | + 3.1 | 86 | 5 | 25 | 31 | 39 | 2.26 | - 1.34 | 0.94 | 0.0 | 6 | 16 | 7 | 8 | w. | John Neagle. | |
| Plainfield. | Union. | 100 | 24 | 56.0 | + 3.0 | 86 | 5 | 24 | 31 | 42 | 2.57 | - 1.08 | 1.50 | 0.0 | 7 | 11 | 11 | 9 | ne. | L. Van Gilder. | |
| Pleasantville. | Atlantic. | 24 | 12 | | | | | | | | | | | | | | | | M. S. Taylor. | | |
| Pompton Plains. | Morris. | 135 | 8 | | | | | | | | | | | | | | | | Spencer Haines. | | |
| Rancocas. | Burlington. | 68 | 47 | | | | | | | | | | | | | | | | G. S. M. Holdrum. | | |
| Rivervale. | Bergen. | 70 | 19 | | | | | | | | | | | | | | | | P. Hardcastle. | | |
| Somerville. | Somerset. | 76 | 27 | 56.2 | + 2.8 | 88 | 5 | 23 | 31 | 42 | 2.40 | - 1.01 | 1.30 | 0.0 | 8 | 16 | 6 | 9 | nw. | Dr. W. J. Chandler. | |
| South Orange. | Essex. | 200 | 40 | 55.3 | + 2.4 | 82 | 5 [†] | 28 | 31 | 32 | 2.78 | - 1.03 | 1.64 | 0.0 | 5 | 14 | 9 | 9 | sw. | Prof. W. H. Seeley. | |
| Sussex. | Sussex. | 442 | 20 | 56.4 [†] | + 4.2 | 83 | 6 | 29 | 30 | 38 | 1.55 | - 1.86 | 0.51 | 0.0 | 4 | 14 | 9 | 8 | nw. | Paul H. Wendel. | |
| Trenton. | Mercer. | 60 | 38 | 59.3 | + 2.8 | 89 | 6 | 29 | 30 | 38 | 4.63 | + 0.89 | 2.70 | 0.0 | 6 | 16 | 8 | 7 | nw. | F. R. Austin. | |
| Tuckerton. | Ocean. | 23 | 17 | 57.7 | + 2.9 | 83 | 11 | 22 | 20 | 35 | 4.55 | + 0.88 | 3.10 | 0.0 | 8 | 18 | 6 | 8 | nw. | Alfred Chalmers. | |
| Vineland. | Cumberland. | 118 | 41 | 58.2 [†] | + 2.8 | 87 | 6 | 26 | 30 | 35 | 4.19 | + 0.71 | 3.07 | 0.0 | 7 | 15 | 8 | 8 | sw. | Prof. H. A. Dodge. | |
| Woodbine. | Cape May. | 43 | 19 | 58.2 | + 2.6 | 85 | 6 | 25 | 30 [†] | 36 | 3.69 | + 0.31 | 2.15 | 0.0 | 9 | 17 | 6 | 8 | | | |
| <i>West Virginia.</i> | | | | | | | | | | | | | | | | | | | | | |
| Bayard. | Grant. | 2,500 | 8 | 52.6 [†] | | 84 [†] | 51 | 20 | 23 [†] | 48 [†] | 2.00 | - 0.65 | 1.6 | 0 | 9 | 22 | 2 | 7 | w. | Solomon Clark. | |
| Burlington. | Mineral. | 875 | 15 | 57.1 | + 4.3 | 88 | 5 | 18 | 30 | 47 | 0.80 | - 1.14 | 0.50 | 1.0 | 3 | 15 | 15 | 1 | nw. | J. W. Vandiver. | |
| Franklin. | Pendleton. | 3 | | 56.7 | | 89 | 1 | 18 | 30 | 41 | 2.22 | | 1.42 | 1.0 | 4 | 21 | 5 | 3 | | A. A. Martin. | |
| Lost City. | Hardy. | 4 | | 56.6 | | 83 | 5 | 22 | 30 | 44 | 1.65 | | 0.78 | 0.0 | 6 | 23 | 3 | 5 | w. | B. D. Hinegardner. | |
| Martinsburg. | Berkley. | 435 | 19 | 56.0 | + 2.7 | 88 | 5 | 27 | 30 | 40 | 1.76 | - 0.71 | 0.87 | 0.0 | 6 | 24 | 3 | 4 | nw. | G. W. Van Metre, C. E. | |
| Moorefield. | Hardy. | 900 | 14 | 58.6 | + 2.8 | 89 | 5 | 27 | 24 | 44 | 1.15 | - 0.80 | 0.75 | 0.0 | 3 | 13 | 16 | 2 | s. | John C. Fisher. | |
| Romney. | Hampshire. | 824 | 14 | 57.2 | + 2.0 | 91 | 5 | 25 | 30 | 43 | 1.33 | - 0.89 | 0.60 | 0.0 | 5 | 19 | 6 | 6 | w. | John C. Linthicum. | |
| Upper Tract. | Pendleton. | 1,230 | 12 | 57.8 | + 2.5 | 84 | 5 | 19 | 30 | 47 | 1.72 | - 0.40 | 0.66 | 0.5 | 8 | 13 ^a | 10 ^a | 7 ^a | w. | J. M. Mallow. | |
| <i>Maryland.</i> | | | | | | | | | | | | | | | | | | | | | |
| Annapolis. | Anne Arundel. | 45 | 32 | 59.4 | + 1.3 | 84 | 15 | 31 | 20 | 31 | 3.72 | - 0.03 | 1.60 | 0.0 | 8 | 22 | 4 | 5 | nw. | W. M. Abbott. | |
| Bachmans Valley. | Carroll. | 860 | 17 | 58.7 | + 6.0 | 90 | 6 | 26 | 30 | 49 | 2.20 | - 1.50 | 0.75 | 0.0 | 5 | 25 | 3 | 5 | sw. | Elmer E. Yingling. | |
| Baltimore. | Baltimore. | 115 | 40 | 40.8 | + 3.3 | 97 | 1 | 32 | 30 | 40 | 2.71 | - 0.31 | 0.85 | 0.0 | 10 | 19 | 7 | 5 | sw. | U. S. Weather Bureau. | |
| Cambridge. | Dorchester. | 25 | 12 | 62.2 | + 3.7 | 91 | 6 | 30 | 31 | 39 | 6.04 | + 2.59 | 3.34 | 0.0 | 8 | 19 | 6 | 8 | s. | T. E. Keenan. | |
| Cheltenham. | Prince George. | 230 | 10 | 60.8 | | 86 | 11 | 30 | 30 | 35 | 4.03 | | 1.77 | 0.0 | 8 | 17 | 9 | 5 | nw. | J. E. Burbank. | |
| Chestertown. | Kent. | 80 | 25 | 59.3 | + 3.5 | 83 | 11 | 21 | 30 | 35 | 3.06 | + 0.67 | 2.45 | 0.0 | 5 | 23 | 3 | 4 | s. | M. W. Thomas. | |
| Clear Spring. | Washington. | 530 | 13 | 57.0 | + 3.0 | 89 | 6 | 23 | 20 | 39 | 1.18 | - 1.71 | 0.40 | 0.0 | 7 | 20 | 10 | 1 | nw. | D. Paul Oswald. | |
| Coleman. | Kent. | 80 | 12 | 60.9 | | 86 | 1 | 22 | 20 [†] | 25 | 1.31 | - 1.48 | 0.65 | 0.0 | 7 | 21 | 7 | 3 | nw. | W. W. Frantz. | |
| College Park. | Prince George. | 170 | 20 | 60.2 | + 4.6 | 92 | 1 | 24 | 31 | 44 | 4.23 | + 0.10 | 2.36 | 0.0 | 5 | 23 | 1 | 7 | sw. | J. S. Harris. | |
| Cumberland. | Allegany. | 300 | 18 | 58.0 | + 3.5 | 88 | 1 | 26 | 30 | 34 | 2.71 | - 0.59 | 1.19 | 0.0 | 6 | 20 | 4 | 7 | nw. | Prot. A. F. Galbreath. | |
| Darlington. | Harford. | 42 | 15 | 59.5 | + 3.4 | 84 | 17 | 28 | 30 | 39 | 4.75 | + 1.55 | 2.93 | 0.0 | 7 | 22 | 1 | 8 | s. | H. B. Mason. | |
| Denton. | Talbot. | 35 | 19 | 60.0 | + 3.2 | 84 | 6 [†] | 31 | 31 | 33 | 7.24 | + 4.15 | 5.13 | 0.0 | 7 | 22 | 2 | 5 | nw. | Henry Shreve. | |
| Easton. | Frederick. | 720 | 37 | 61.1 | + 6.8 | 90 | 1 | 23 | 20 | 37 | 1.45 | - 2.34 | 0.63 | 0.0 | 6 | 24 | 3 | 4 | w. | Jno. H. Eckenrode. | |
| Emmitsburg. | Harford. | 450 | 40 | 58.7 | + 4.2 | 89 | 1 | 26 | 30 | 34 | 2.36 | - 1.25 | 0.88 | 0.0 | 7 | 21 | 2 | 2 | nw. | J. H. Curtiss. | |
| Fallston. | Frederick | | | | | | | | | | | | | | | | | | | | |

TABLE 1.—Climatological data for October, 1910. District No. 1—Continued.

| Stations. | Counties. | Elevation, feet. | Length of record, yrs. | Temperature, in degrees Fahrenheit. | | | | | Precipitation, in inches. | | | | | Sky. | Prevailing wind direction. | Observers. | | |
|------------------------------|-----------------------|------------------|------------------------|-------------------------------------|----------------------------|----------|-------|---------|---------------------------|-----------------------|--------|----------------------------|-----------------------|--------------------------|---|-------------------------------|-----------------------|-----|
| | | | | Mean. | Departure from the normal. | Highest. | Date. | Lowest. | Date. | Greatest daily range. | Total. | Departure from the normal. | Greatest in 24 hours. | Total snowfall unmelted. | Number of rainy days, .01 inch or more. | Number of partly cloudy days. | Number of clear days. | |
| <i>Delaware—Cont'd.</i> | | | | | | | | | | | | | | | | | | |
| Dover | Kent. | 40 | 22 | 60.0 | + 3.8 | 87 | 1† | 28 | 30 | 34 | 4.92 | + 1.75 | 3.30 | 0.0 | 7 | 20 | 5 | w. |
| Milford | do | 20 | 26 | 63.0 | + 1.3 | 86 | 6 | 28 | 30 | 34 | 5.10 | + 1.63 | 2.96 | 0.0 | 9 | 20 | 7 | nw. |
| Millboro | Sussex | 20 | 18 | 60.1 | + 3.4 | 88 | 6 | 27 | 31 | 37 | 5.81 | + 2.10 | 2.80 | 0.0 | 7 | 21 | 3 | nw. |
| Seaford | do | 40 | 17 | 53.7 | + 3.5 | 84 | 5† | 29 | 30† | 30 | 8.26 | + 4.98 | 5.47 | 0.0 | 5 | 19 | 6 | w. |
| <i>District of Columbia.</i> | District of Columbia. | 112 | 40 | 60.2 | + 3.6 | 90 | 1 | 31 | 30 | 34 | 5.74 | + 2.65 | 3.67 | 0.0 | 9 | 20 | 3 | nw. |
| <i>Virginia.</i> | Culpeper | 450 | 2 | 58.0 | ..... | 86 | 1 | 26 | 31 | 39 | 4.54 | ..... | 2.38 | 0.0 | 4 | 11 | 15 | nw. |
| Dale Enterprise | Rockingham | 1,350 | 30 | 57.2 | + 2.2 | 85 | 1 | 18 | 30 | 48 | 3.33 | + 0.54 | 1.27 | T. | 6 | 18 | 10 | s. |
| Dowell | Hanover | 134 | 9 | 61.6 | ..... | 89 | 20 | 24 | 30 | 35 | 3.42 | ..... | 1.17 | 0.0 | 6 | 17 | 11 | s. |
| Eastville | Northampton | 15 | 63.4 | ..... | 85 | 6 | 39 | 31 | 27 | 4.53 | ..... | 2.03 | 0.0 | 8 | 22 | 3 | sw. | |
| Fredericksburg | Spotsylvania | 100 | 21 | 60.8 | + 3.6 | 90 | 1 | 25 | 30 | 41 | 5.05 | + 1.40 | 1.50 | 0.0 | 8 | 19 | 8 | nw. |
| Lincoln | Loudoun | 500 | 9 | 60.3 | ..... | 93 | 1 | 20 | 31 | 51 | 4.48 | ..... | 1.39 | 0.0 | 7 | 20 | 7 | nw. |
| Mount Weather | do | 1,726 | 6 | 55.8 | + 4.3 | 83 | 1 | 25 | 30 | 29 | 3.73 | + 1.31 | 1.32 | T. | 8 | 16 | 8 | w. |
| Quantico | Prince William | 16 | 13 | ..... | ..... | 86 | 16 | 28 | 30 | 30 | 5.45 | ..... | 3.15 | 0.0 | 7 | ..... | ..... | nw. |
| Staunton | Augusta | 1,380 | 18 | 58.3 | + 2.5 | 86 | 16 | 24 | 30 | 40 | 3.63 | + 0.59 | 1.42 | T. | 6 | 18 | 9 | sw. |
| Stephens City | Frederick | 710 | 18 | 58.8 | + 3.0 | 90 | 1 | 21 | 30 | 45 | ..... | ..... | 0.0 | ..... | 22 | 3 | 6 | sw. |
| Warren | Richmond | 160 | 18 | 62.2 | + 4.8 | 88 | 6 | 28 | 30 | 34 | 7.39 | + 4.22 | 4.34 | 0.0 | 7 | 17 | 10 | e. |
| Woodstock | Shenandoah | 927 | 14 | 60.0 | + 2.3 | 93 | 1 | 23 | 30 | 46 | 2.01 | + 0.77 | 0.77 | T. | 9 | 18 | 9 | w. |

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

Estimate by observer.

||| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

Thos. F. Dunn.
C. J. Holzmueller.
Rev. L. W. Wells.
E. B. Brown.
U. S. Weather Bureau.
Col. H. C. Burrows.
Rev. L. J. Heatwole.
Rich., Fdksbg. & Pot. R. R.
Thos. B. Robertson.
S. G. Howison.
Dr. Geo. Roberts.
U. S. Weather Bureau.
Rich., Fdksbg. & Pot. R. R.
Ernest Nothnagel.
B. T. Argenbright.
C. H. Constable.
Miss A. G. Miley.

TABLE 2.—*Daily precipitation for October, 1910. District No. 1, North Atlantic States.*

TABLE 2.—*Daily precipitation for October, 1910. District No. 1—Continued.*

TABLE 2.—*Daily precipitation for October, 1910. District No. 1—Continued.*

TABLE 2.—*Daily precipitation for October, 1910. District No. 1—Continued.*

TABLE 3.—*Maximum and minimum temperatures at selected stations, October, 1910. District No. 1, North Atlantic States.*

New York.

Pennsylvania.

MONTHLY WEATHER REVIEW.

OCTOBER, 1910

TABLE 3.—*Maximum and minimum temperatures at selected stations, October, 1910. District No. 1—Continued.*

| Date. | New Jersey. | | | | | | | | Maryland. | | | | | | | | Virginia. | | | | | | | | | | | |
|-------|----------------|------|-------------|------|---------|------|---------------|------|-----------------------------------|------|------------|------|-------------|------|------------|------|-----------|------|-----------------|------|-------------------|------|-----------|------|-----------------|------|-------------------------|------|
| | Atlantic City. | | Hightstown. | | Newton. | | Phillipsburg. | | Martinsburg, W. Va. ¹⁵ | | Baltimore. | | Darlington. | | Frederick. | | Westport. | | Millsboro, Del. | | Washington, D. C. | | Culpeper. | | Fredericksburg. | | Staunton. ¹⁵ | |
| | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | | |
| 1... | 76 | 65 | 83 | 57 | | | 82 | 59 | 87 | 60 | 90 | 62 | 83 | 58 | 88 | 61 | 84 | 52 | 84 | 54 | 90 | 61 | 86 | 59 | 90 | 60 | 85 | 59 |
| 2... | 68 | 56 | 77 | 50 | | | 67 | 47 | 72 | 53 | 72 | 58 | 77 | 48 | 80 | 56 | 75 | 48 | 73 | 55 | 77 | 61 | 78 | 56 | 76 | 61 | 78 | 52 |
| 3... | 70 | 51 | 75 | 38 | | | 75 | 40 | 79 | 43 | 73 | 50 | 73 | 42 | 76 | 41 | 78 | 40 | 75 | 42 | 71 | 43 | 75 | 45 | 72 | 44 | 72 | 44 |
| 4... | 74 | 67 | 81 | 56 | | | 80 | 55 | 82 | 43 | 79 | 63 | 78 | 59 | 82 | 58 | 84 | 51 | 83 | 52 | 81 | 63 | 57 | 84 | 54 | 81 | 54 | 82 |
| 5... | 76 | 69 | 86 | 64 | | | 84 | 65 | 86 | 51 | 84 | 67 | 81 | 55 | 87 | 65 | 89 | 58 | 86 | 62 | 88 | 68 | 83 | 65 | 88 | 63 | 81 | 62 |
| 6... | 76 | 70 | 87 | 63 | | | 86 | 66 | 88 | 60 | 84 | 68 | 82 | 67 | 86 | 51 | 89 | 57 | 88 | 67 | 85 | 68 | 83 | 65 | 88 | 65 | 83 | 63 |
| 7... | 72 | 54 | 79 | 53 | | | 73 | 59 | 54 | 54 | 75 | 55 | 77 | 54 | 80 | 56 | 81 | 53 | 79 | 62 | 76 | 53 | 80 | 54 | 81 | 55 | 88 | 54 |
| 8... | 61 | 53 | 59 | 47 | | | 60 | 44 | 52 | 48 | 55 | 52 | 54 | 48 | 67 | 49 | 55 | 45 | 70 | 54 | 54 | 51 | 56 | 48 | 57 | 49 | 53 | 47 |
| 9... | 70 | 54 | 69 | 51 | | | 67 | 49 | 72 | 48 | 73 | 54 | 70 | 49 | 72 | 48 | 72 | 46 | 74 | 56 | 74 | 53 | 73 | 48 | 76 | 51 | 78 | 45 |
| 10... | 64 | 47 | 65 | 43 | | | 62 | 46 | 67 | 48 | 66 | 51 | 63 | 47 | 64 | 49 | 70 | 47 | 68 | 49 | 65 | 46 | 67 | 45 | 69 | 46 | 67 | 39 |
| 11... | 76 | 50 | 80 | 41 | | | 78 | 45 | 80 | 40 | 78 | 51 | 78 | 44 | 76 | 46 | 81 | 38 | 79 | 45 | 80 | 46 | 78 | 39 | 82 | 41 | 80 | 40 |
| 12... | 76 | 47 | 73 | 48 | | | 67 | 41 | 81 | 41 | 81 | 51 | 76 | 49 | 78 | 58 | 81 | 51 | 81 | 52 | 81 | 49 | 80 | 44 | 86 | 47 | 83 | 48 |
| 13... | 58 | 40 | 63 | 29 | | | 61 | 33 | 62 | 41 | 69 | 41 | 62 | 36 | 61 | 42 | 65 | 44 | 61 | 46 | 64 | 44 | 68 | 40 | 68 | 43 | 68 | 43 |
| 14... | 72 | 58 | 79 | 38 | | | 75 | 44 | 81 | 41 | 80 | 55 | 78 | 47 | 77 | 48 | 82 | 36 | 81 | 45 | 80 | 52 | 76 | 47 | 80 | 51 | 79 | 48 |
| 15... | 69 | 59 | 69 | 54 | | | 68 | 54 | 83 | 45 | 77 | 63 | 76 | 55 | 81 | 50 | 82 | 53 | 83 | 54 | 84 | 58 | 81 | 51 | 85 | 55 | 82 | 50 |
| 16... | 83 | 59 | 83 | 55 | | | 79 | 52 | 83 | 54 | 85 | 59 | 81 | 52 | 82 | 60 | 85 | 55 | 83 | 50 | 85 | 56 | 83 | 51 | 83 | 53 | 86 | 53 |
| 17... | 68 | 52 | 73 | 40 | | | 75 | 41 | 75 | 49 | 72 | 55 | 74 | 46 | 74 | 48 | 78 | 48 | 77 | 49 | 73 | 53 | 75 | 54 | 77 | 54 | | |
| 18... | 69 | 51 | 79 | 40 | | | 78 | 39 | 75 | 42 | 72 | 49 | 75 | 41 | 74 | 41 | 79 | 40 | 71 | 42 | 75 | 44 | 70 | 42 | 72 | 43 | 75 | 46 |
| 19... | 71 | 60 | 79 | 45 | | | 76 | 44 | 71 | 44 | 76 | 56 | 76 | 42 | 70 | 50 | 78 | 40 | 77 | 51 | 76 | 54 | 65 | 52 | 74 | 44 | 65 | 56 |
| 20... | 70 | 62 | 68 | 61 | | | 71 | 58 | 78 | 54 | 72 | 65 | 69 | 64 | 76 | 63 | 83 | 59 | 74 | 61 | 75 | 64 | 79 | 66 | 80 | 57 | | |
| 21... | 63 | 56 | 65 | 51 | | | 61 | 51 | 58 | 56 | 66 | 58 | 67 | 56 | 70 | 55 | 70 | 47 | 65 | 57 | 67 | 58 | 71 | 54 | 73 | 57 | 77 | 52 |
| 22... | 64 | 47 | 58 | 43 | | | 53 | 46 | 61 | 46 | 65 | 51 | 62 | 52 | 62 | 68 | 47 | 65 | 50 | 63 | 51 | 65 | 48 | 66 | 56 | 64 | 54 | |
| 23... | 60 | 45 | 57 | 38 | | | 57 | 41 | 59 | 44 | 61 | 45 | 60 | 40 | 60 | 41 | 60 | 42 | 63 | 41 | 61 | 42 | 61 | 39 | 65 | 37 | 63 | 36 |
| 24... | 60 | 40 | 60 | 34 | | | 58 | 38 | 63 | 34 | 63 | 44 | 60 | 35 | 61 | 36 | 65 | 31 | 64 | 36 | 63 | 37 | 61 | 34 | 67 | 35 | 64 | 36 |
| 25... | 64 | 47 | 55 | 39 | | | 61 | 40 | 63 | 35 | 67 | 47 | 64 | 41 | 61 | 43 | 60 | 42 | 69 | 42 | 66 | 42 | 64 | 38 | 70 | 39 | 65 | 41 |
| 26... | 60 | 41 | 60 | 40 | | | 60 | 40 | 64 | 41 | 63 | 44 | 59 | 40 | 62 | 40 | 65 | 32 | 63 | 41 | 64 | 45 | 61 | 36 | 66 | 37 | 65 | 36 |
| 27... | 68 | 51 | 74 | 38 | | | 69 | 39 | 68 | 40 | 70 | 40 | 45 | 63 | 41 | 69 | 35 | 73 | 46 | 66 | 48 | 61 | 42 | 68 | 49 | 65 | 43 | |
| 28... | 55 | 37 | 72 | 44 | | | 51 | 25 | 49 | 40 | 52 | 28 | 63 | 42 | 52 | 39 | 48 | 35 | 64 | 35 | 54 | 38 | 58 | 40 | 65 | 42 | 48 | 36 |
| 29... | 49 | 34 | 51 | 28 | | | 48 | 29 | 45 | 31 | 46 | 36 | 45 | 31 | 46 | 32 | 39 | 31 | 48 | 31 | 48 | 34 | 45 | 31 | 48 | 32 | 44 | 28 |
| 30... | 46 | 30 | 49 | 26 | | | 48 | 27 | 49 | 32 | 48 | 26 | 47 | 30 | 51 | 18 | 50 | 29 | 49 | 31 | 48 | 28 | 52 | 25 | 50 | 24 | | |
| 31... | 57 | 41 | 59 | 25 | | | 58 | 25 | 64 | 27 | 63 | 35 | 60 | 30 | 60 | 28 | 65 | 26 | 34 | 27 | 65 | 32 | 59 | 26 | 67 | 27 | 65 | 23 |
| Mns | 66.5 | 51.4 | 70.2 | 44.4 | | | 67.4 | 44.6 | 69.6 | 44.2 | 70.0 | 51.7 | 69.2 | 46.8 | 70.2 | 48.2 | 72.1 | 43.5 | 72.1 | 48.1 | 71.0 | 49.5 | 69.5 | 46.4 | 73.5 | 48.1 | 70.3 | 46.3 |